

A NEW SPECIES OF *MACROTYLOMA* (WIGHT & ARN.) VERDC. (FABACEAE)
FROM GARHWAL HIMALAYA, U.P., INDIA¹

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(With one text-figure)

While exploring the remote localities of Garhwal Himalaya (Pauri District), some interesting specimens of the genus *Macrotyloma* (Wight & Arn.) Verdc. were collected. Thorough consultation of literature and herbaria at Botanical Survey of India, Northern Circle, Dehradun (BSD) and Forest Research Institute, Dehradun (DD), indicated generic circumscription of *Macrotyloma*, though, quite distinct from the known species, *Macrotyloma sar-garhwalensis* sp. nov. is thus described.

Macrotyloma sar-garhwalensis sp. nov.

Herbae annuae, erectae, non volubiles. Folia pentafoliolata; stipulae magnae, lanceolatae. Calycis tubus longior quam dentibus. Corolla intra calycem inclusa; vexillum apice pilosum, appendices nulli, carina breviter rostrata; stylus deorsum barbatus.

Herba annua pubescens, 15 - 50 cm alta, caule erecto, anguste costato, simplici vel ramoso. Folia imparipinnata, 5-foliolata, ca 8 cm longa (petiolo incluso); foliola sessilia vel subsessilia, ca 1.8 - 4.5 cm x 0.6 - 1.2 cm, oblonga, lanceolata ad ovata vel elliptica, acuta, vix utrinque pubescentia, manifeste in nervis infra, ad marginemque; foliola lateralia parum obliqua vel non obliqua. Stipulae 4 x 11 mm longae, lanceolatae, utrinque minute pilosae. Inflorescentia axillaris, brevi-pedunculata, fasciculata, flores 1-2, in uno pedunculo communi brevi, ca 7 mm longo; pedicellus brevis, ca 4 mm

longus, pilosulus. Bractee ovato-lanceolatae, acutae, ca 6 mm longae, pilosae ad marginem et in nervis. Calyx pubescens, campanulatus, 10 nervis, ca 6 mm longus, tubus longior quam dentes, dentes inaequales. Corolla crenea, intra calycem, inclusa, vexillum ovato-obovatum, apice pilosum, ca 6 mm longum; ala angusta, tenuis, ca 6 mm longa. Stamina diadelpa (9+1), ca 6 mm longa; antherae plerumque, uniformes, dithecae. Gynaecium ca 7 mm longum; ovarium pilosum, breviter stipitatum, stylus filiformis, sursum incrassatus, aliquantum S-formis, deorsum barbatus, stigma capitatum cum annulo pilorum. Legumina compressa, breviter curvata, brunnea, ca 3 - 5 cm x 0.3 - 0.7 cm, non septata, utrinque minute pilosa cum calyce bracteisque, persistentibus. Semina 4 - 6 in uno legumine, compressa, subquadrato-rotundata, ca 4 mm longa lataque, nitida, nigra.

Typus: Sara Village, Pauri District, Uttar Pradesh, 700 m, 17.ix.1994, R.D. Gaur, 12,380A Garhwal Himalayas (Holotypus - GUH); Isotypus: Ibid. R.D. Gaur, 12,380B, Garhwal Himalaya.

Macrotyloma sar-garhwalensis sp. nov.

(Fig. A - K₂)

Annual, erect, non-twining herbs. Leaves pentafoliate; stipules large, lanceolate. Calyx tube longer than teeth. Corolla included within the calyx; vexillum tip hairy, appendages absent; keel shortly beaked. Style bearded on the lower sides of the upper section.

Annual, pubescent, 15 - 50 cm tall herbs, with erect, narrowly ribbed, simple or branched stem. Leaves imparipinnate, 5-foliate, ca 8 cm

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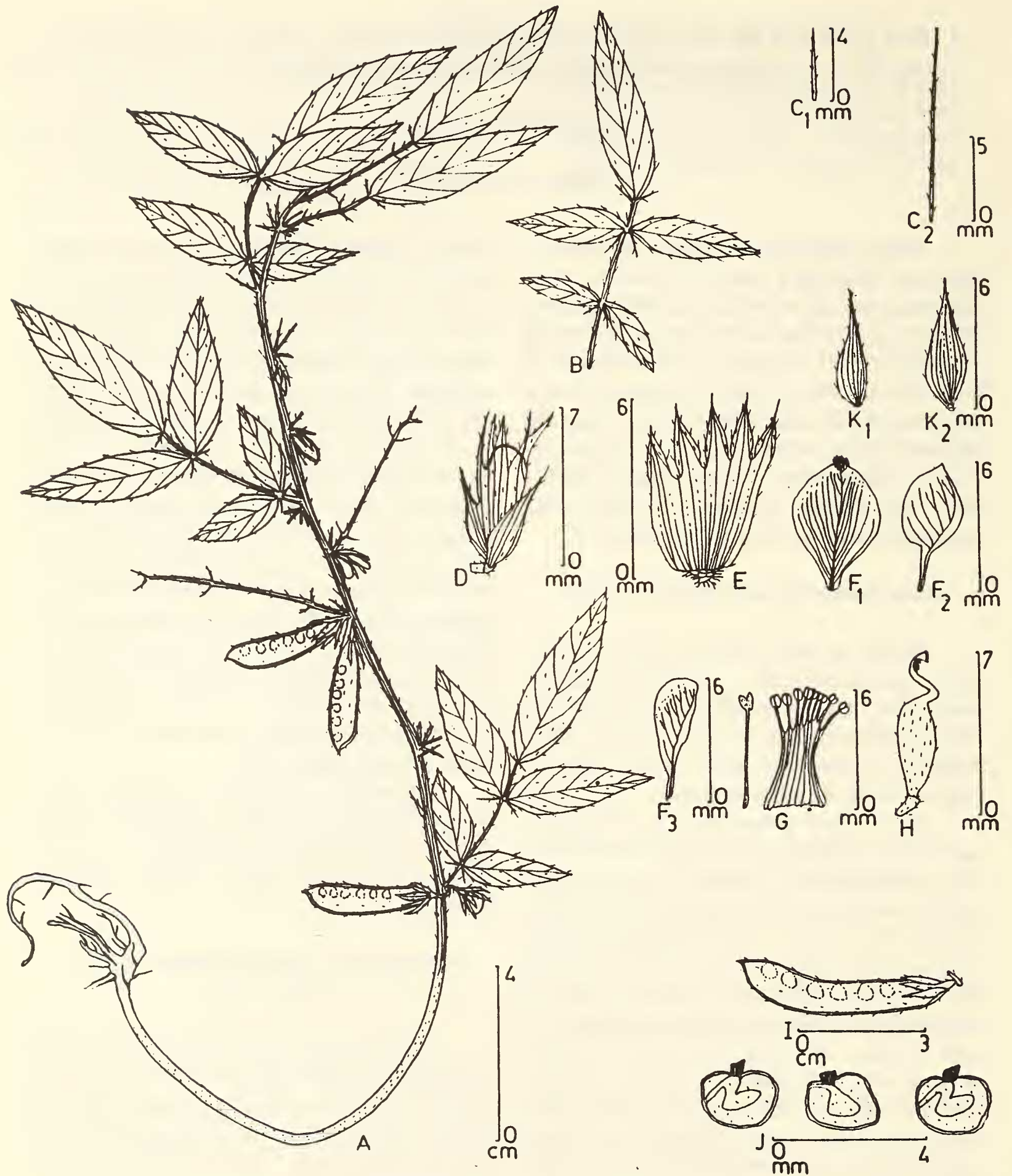


Fig. 1. *Macrotyloma sar-garhwalensis* sp. nov. A. Flowering and fruiting plant; B. Leaf; C₁, C₂. Bracts; D. Flower; E. Calyx; F₁, F₂, F₃. Corolla; G. Stamens; H. Gynaecium; I. Pod; J. Seeds; K₁, K₂. Stipules

long (including petiole); leaflets sessile or subsessile, *ca* 1.8 - 4.5 cm x 0.6 - 1.2 cm, oblong, lanceolate to ovate or elliptic, acute, sparsely pubescent on both surfaces, prominently on nerves beneath and at the margins; lateral leaflets slightly oblique or not. Stipules 4 - 11 mm long, lanceolate, minutely hairy on both surfaces. Inflorescence axillary, short peduncled, fasciculate; flowers 1 - 2 on a short common peduncle, *ca* 7 mm long; pedicel short, *ca* 4 mm long, minutely hairy. Bracts obovate - lanceolate, acute, *ca* 6 mm long, hairy at the margins and nerves. Calyx pubescent, campanulate, 10-nerved, *ca* 6 mm long, tube longer than teeth, teeth unequal. Corolla cream-yellow, included within the calyx; vexillum ovate-obovate, tip hairy, *ca* 6 mm long; wing narrow, feathery, *ca* 6 mm long. Stamens diadelphous (9+1), *ca* 6 mm long; anthers usually uniform, dithecous. Gynaecium 7 mm long; ovary hairy, shortly stipitate; style filiform, thickened upwards, somewhat

'S' shaped, bearded on the lower sides; stigma capitate, with a ring of hairs. Pods compressed, shortly curved, brown coloured, *ca* 3 - 5 cm x 0.3 - 0.7 cm; not septate, minutely hairy on both sides, with a persistent calyx and bracts. Seeds 4 - 6 in a pod, compressed, squarish-round, *ca* 4 mm as long as broad, shining black coloured.

Fl. and Fr.: August - October

Ecology: On exposed grassy slopes, along the edge of crop fields, associated with species of *Desmodium* and *Alysicarpus*, as well as some shrubs.

Etymology: The plant species is named after the type locality, village Sara of Garhwal Himalaya, in Uttar Pradesh, India.

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